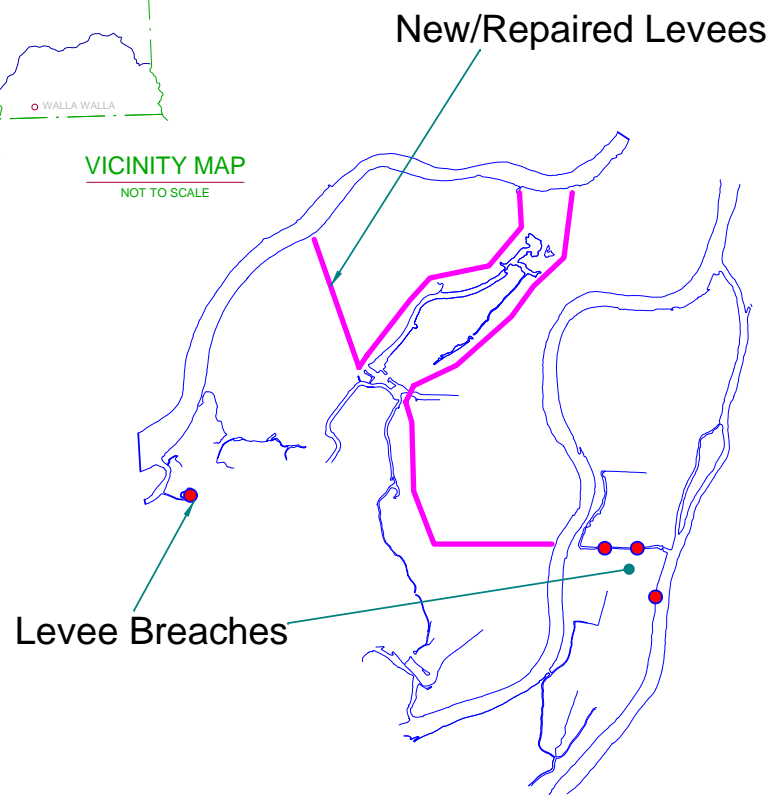


Deepwater Slough Section 1135 Ecosystem Restoration





Deepwater Slough Partners

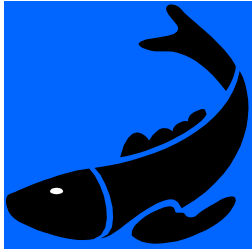
- Several Tribes and Agencies are working collaboratively on this project, they include:
- State Department of Fish and Game (local sponsor)
- USFWS
- Skagit Cooperative (Upper Skagit, Sauk and Swinomish Tribes)
- Skagit County
- Active Duty Army Forces



Deepwater Slough Ecological Goals

- Purpose: “To restore natural ecosystem function to Deepwater Slough “
- What does this mean? Restoring natural hydrologic process (tidal and riverine inundation)
- Allow these processes to create new channels for juvenile fish feeding and refuge.
- Support ESA recovery
- Maintain existing waterfowl benefits

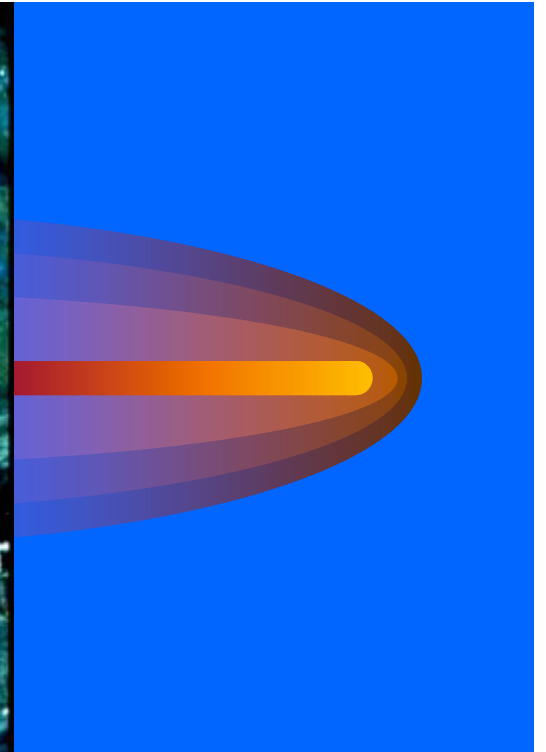


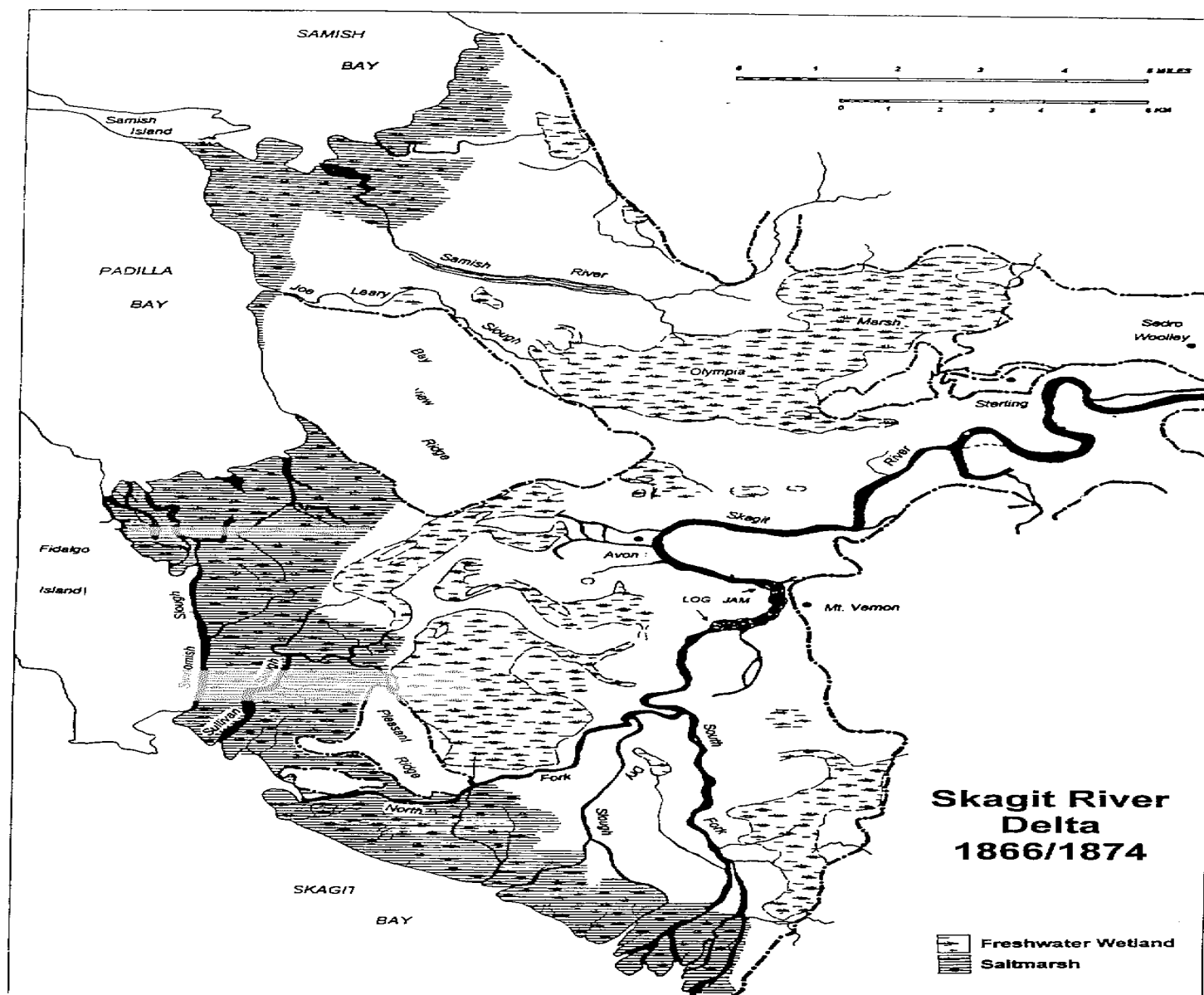


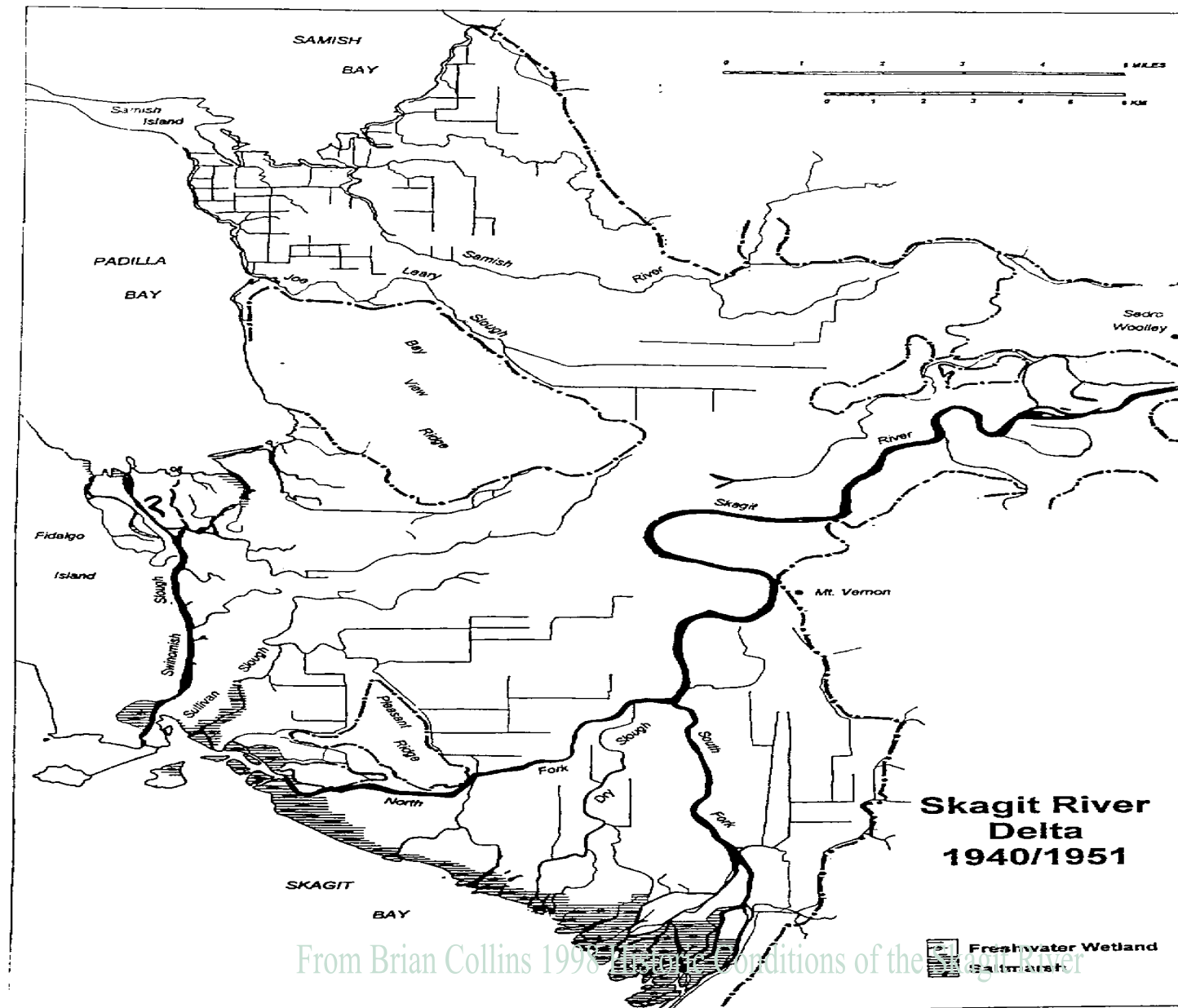
Deepwater Slough Ecological Benefits

- What key species are expected to benefit from this project?
- Fish- Juvenile chinook, chum, steelhead and sea-run cutthroat trout.
- Raptors- Marsh Hawk, bald eagle, peregrine falcon, red tailed hawk
- Shorebirds- greater yellowlegs, dunlin, spotted sandpiper










From Brian Collins 1998 *Historic Conditions of the Skagit River*

From Brian Collins 1998 *Historic Conditions of the Skagit River*

Historic Changes in the Deepwater Slough Area

- 
- Originally- fresh and saltwater marsh.
 - European settlers (around 1880's) used dikes and levees to convert marsh to hops.
 - Hops farms converted to other ag. uses at the turn of the century
 - Deepwater Farmed to early 1950s.
 - State Wildlife area mid 50's converted to barley production.

Deepwater Slough Demolition Mission



Task Organization - August

- Seattle District, USACE
 - 3/C/14(+) Engineers (Corps Wheeled) (30 pax)
 - SF Team, 5th Special Forces Group (8 pax)
 - Ranger Element (3 pax)















Equipment Mobilized by Barge



Constructed Conveyor System to Import Levee Material





The Completed Conveyor System a.k.a. “The Golden Gate Bridge”



Material Placed onto Conveyor



Loaded into Trucks



Material Used to Build Driving Surfaces on Old Levees

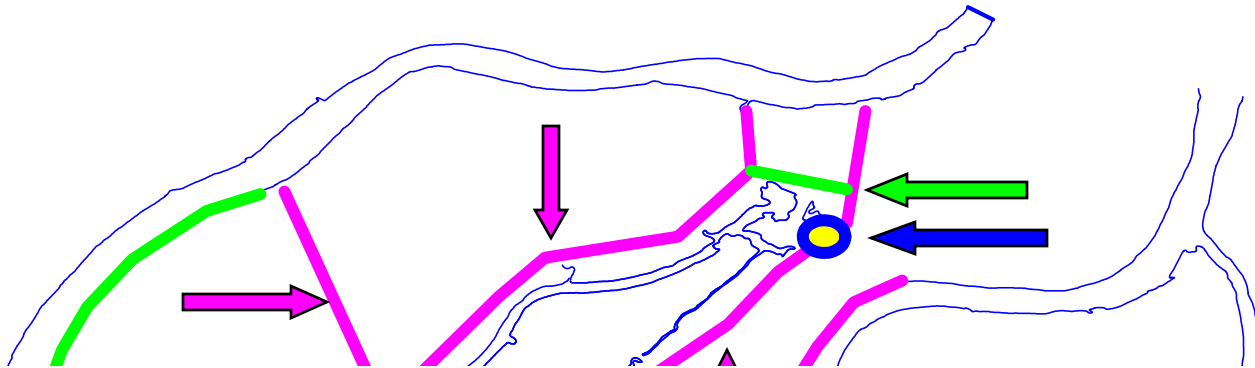


Clearing and Grading in Preparation of This Year

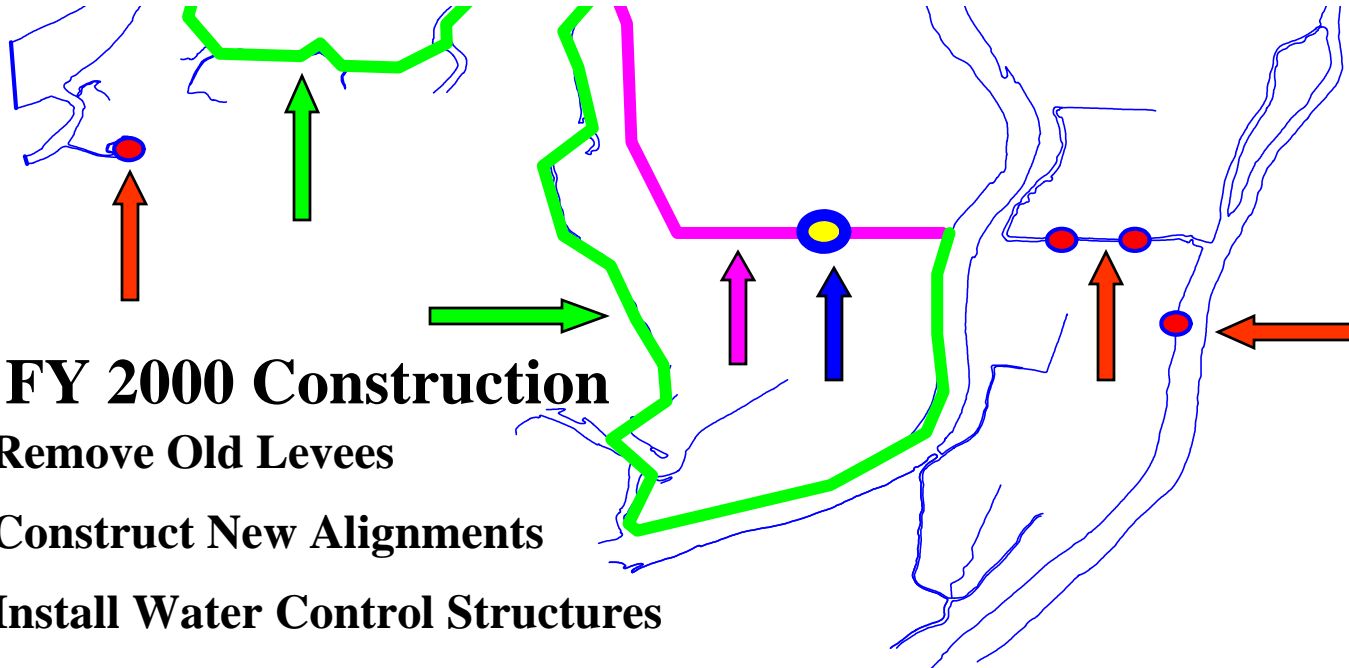


Dragline Construction of Other Levee Alignments





Construction to be completed December 2000



FY 2000 Construction

Remove Old Levees

Construct New Alignments

Install Water Control Structures

Monitor and Adjust Breaches as Needed



In Conclusion



- Deepwater Slough 1135 is a collaborative effort.
- Purpose is to restore the historic hydrologic processes. Provide benefits to a variety of species.
- Type of project the Corps should be pursuing.